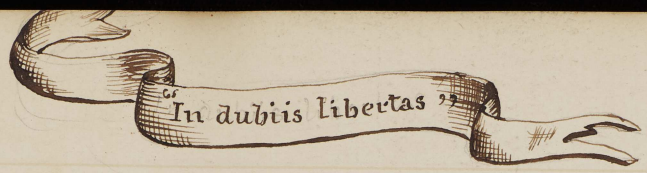

An Essay
on the
Office of the Colon
Respectfully submitted
to the **FACULTY** of the
Homœopathic Medical College
of
Pennsylvania
on the
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One thousand eight hundred and fifty three
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Office of the Colon

"In dubiis libertas"

The generally received opinion in regard to the function of the colon in the Human Economy is, that it is an organ acting merely or principally as a receptacle or depository for that part of the substance taken into the body which is rejected by the lacteals as unfit for its nourishment: the debris in question consisting

of "insoluble and indigestable matter such as starch, woody fibre, horny matter epithelium cells and mucus corpuscles, epidermis of both animal and vegetable tissues, chrystals of ammonio magnesium, phosphates, and other excrementitious substances." Now, aside from the evidence which we shall adduce to show the absurdity of this view in regard to the office of the colon, it would be difficult, certainly, for us to reconcile ourselves to the belief that this organ, of so nice and intricate construction, and occupying as it does, to appearance, so prominent a place among the viscera of the abdomen, should serve merely the subordinate and insignificant purposes assigned it by physiologists generally. It is at least admissible

that the function of this intestine has not been so clearly and satisfactorily explained as the various offices of most other parts of the system.

We believe the colon to be the great excreting organ of the faeces; and before presenting our reasons for this opinion, it will perhaps be proper to sketch briefly, the anatomy of this portion of the alimentary canal.

The colon occupies a prominent position in the abdominal cavity, surrounding almost entirely the small intestines in its course, and extending from the Cæcum, the commencement of the large intestine and a mere cul-de-sac, to the Rectum. It is divided by Anatomists for description into three portions; an ascending, transverse, and

descending colon: the Ascending colon commencing at the caecum in the right iliac region, and extending upward to the under surface of the liver, there assuming the name of Transverse colon, it extends transversely across the abdomen, and descends through the left lumbar region to the left iliac fossa, a point exactly opposite its place of starting; here it makes a curve upon itself called the Sigmoid flexture and terminates in the Rectum.

The most external of the proper coverings of the colon is Serous, the next internal a muscular coat, and between this and the mucous or internal surface and connecting the two, is the cellular layer, which serves also for the ramifications of the nerves and vessels distributed to the part. Its circu-

lation, like that of all the viscera of the abdomen, is controlled by a plentiful supply of organic or nutrient nerves.

The mucous membrane lining this organ is, of course, precisely analagous to the same membrane lining the stomach, or to the same membrane in what part soever of the system it may be found. It is a true secreting membrane, as evinced in the stomach by its secretion of gastric juice, by the same membrane in the salivary glands producing saliva, by its presence in the outer ear inducing the secretion of cerumen, and by the production of tears from the same membrane in the lachrymal duct. We think that we have also in the lining of the colon another example of its proper function, in the secretion of the faeces: such secretion

being properly carried on, only when the circulation is perfectly healthy in the part, its organic or nutrient nerves being in a strictly normal condition

The idea that the faeces are the residuum after the process of absorption has been completed, appears to us incorrect because:

Persons may eat for weeks without evacuations, and yet we may find no undue distention of the abdomen, as from overloading of the lower bowels, but we might and probably would find in such cases congestion to various parts of the system. Nature often attempts to relieve herself in these cases, of the superfluous matter in the Blood, hence we have the quantity of urine increased, owing to an increased action of the kidneys: and there

has also been known to be eliminated, through the pores of the skin, a matter strongly resembling feces both in odor and appearance.

Such are some of the results of constipation, a disease of the function of the colon: but as this affection is seldom met with as a distinct disease, it being generally a symptom of more extensive derangement of some other part, it becomes therefore, itself rather a result, than a cause of other affections. If a person perform too much mental labor, or more than is justified by his amount of bodily exercise, his nervous system becomes excited, circulation is hastened, and an increased quantity of blood is thrown to the head: or, if the flush too much,

and congestion ensues from want of exercise of the will, physically or intellectually, the result in either case is the same — there being an increased quantity of blood in the head, as a natural consequence, the stomach and colon are imperfectly supplied, and their secretive functions are disordered to a greater or lesser extent. This failure in the stomach of the secretive function of its mucous membrane, producing indigestion, and the same failure in the mucous membrane of the colon in performing its function, producing constipation. Or, if the mucous membrane of the stomach become inflamed, from the repeated introduction of irritating and injurious articles of diet, or from any other cause, the excess of blood in this part is

followed by its deficiency again in the colon, and the secretion of faeces is again interrupted. Constipation is the general accompaniment of dyspepsia.

How readily does a cathartic produce an evacuation, although food may have been abstained from for a long time previously. Whence comes the rejected matter? If the discharge thus produced by the purgative, were simply the evacuation of the retained excrementitious matter of the bowels, how is the unusual appearance in color, consistance &c, of the discharge in question to be accounted for? The true explanation undoubtedly is, that the purgative acting through the medium of the organic or ganglionic nerves upon the mucous membrane of the stomach,

and from thence upon the same membrane in the intestinal canal, stimulates it to unnatural action; the result is, that its function is rapidly and imperfectly performed, as shown by the appearance of the matter eliminated.

The secondary effect of the purgative is to produce constipation of the bowels: for it is a law of nature, that the stimulation of any part to increased and unnatural action, is followed in due time by a corresponding debility and decreased action in the same part. Hence the artificial stimulation of the colon produced by the drug, is followed by its subsequent debility, and constipation is the ultimate consequence.

We have thus presented, briefly, our

ideas in regard to the office of the colon: and we leave the subject, trusting that it will be fully investigated in the future, for we cannot doubt that the present progressive age, so eminently distinguished for its rapid strides towards perfection in the art of healing, will be, at the same time, distinguished equally for its physiological researches.